Mississippi **Grade 7**

FlyBy Math™ Alignment
2007 Mississippi Mathematics Framework

Content Strand: Number and Operations

Competency 1. Apply concepts of rational numbers and perform basic operations using non-negative rational numbers emphasizing the concepts of ratio, proportion, and percent. Implement concepts with and without the use of calculators.

Objectives/Benchmarks	***FlyBy Math*™ Activities**
e. Solve problems using decimals, fractions, and/or percents.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
j. Solve problems involving proportions and scale drawings.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.
k. Calculate and apply unit rates to real-life situations.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Content Strand: Algebra

Competency 2. Develop and apply the basic operations of non-negative rational numbers with non-negative solutions. Create and apply algebraic expressions and equations.

Objectives/Benchmarks	***FlyBy Math*™ Activities**
a. Recognize, describe, and state the rule of generalized numerical and geometric patterns using tables, graphs, words and symbols.	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.
e. Complete a function table based on a given rule and vice versa.	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

Content Strand: Measurement

Competency 4. Apply appropriate techniques, tools, and formulas to determine measurements with a focus on real-world problems.

Objectives/Benchmarks	***FlyBy Math*™ Activities**
a. Convert, perform basic operations, and solve word problems using standard (English and metric) measurements.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Content Strand: Data Analysis and Probability	
Competency 5. Collect, organize, interpret, and display data. Analyze data to make predictions.	
Objectives/Benchmarks b. Interpret and construct frequency tables, bar graphs, line graphs, histograms and stem-and-leaf plots from real-world data.	***FlyBy Math™* Activities** --Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs. --Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.
c. Interpret data and make predictions from statistical graphs.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes. --Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs.